

CHAPTER 12

HAZARDOUS WASTE MANAGEMENT ASHORE

12-1 Scope

This chapter identifies requirements and responsibilities for the management of hazardous waste (HW) and medical/infectious waste at Navy shore facilities within the United States, Commonwealth of Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands. Chapter 18 provides Navy policy with respect to Navy activities in foreign countries. Chapter 19 defines responsibilities for the management of hazardous materials (HM) aboard Navy ships, and section 12-5.2.1 defines responsibilities for the transfer of HM from Navy ships to shore facilities.

Chapter 3 and Appendix G describe the Navy's integrated logistics approach for effective HM control and management. This chapter complements the approach by providing mandatory elements for an effective HW management program.

12-1.1 References. Although this chapter deals primarily with HW management, an effective overall HW management program must include HW and HM minimization and must integrate occupational safety and health policy into HW management. References are:

- a. 40 CFR 260-270, EPA Hazardous Waste Management Regulations;
- b. Botsford, J., et al. Regulated Medical Waste Definition and Treatment: A Collaborative Document. AORN JOURNAL (*Association of Operating Room Nurses, Inc*), vol. 58, no 1, pp. 111-114, July 1993 (NOTAL);
- c. OPNAVINST 5100.19D, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat (NOTAL);
- d. DOD Directive 4001.1 of 4 September 1986, Installation Management (NOTAL);
- e. DOD Directive 4160.21-M of August 1997, Defense Materiel Disposition Manual
- f. DOD Instruction 4715.4 of 18 June 1996, Pollution Prevention;
- g. BUMEDINST 6280.1A, Management of Infectious Waste.

12-2 Legislation

12-2.1 Resource Conservation and Recovery Act (RCRA). The Resource Conservation and Recovery Act (RCRA), which amended the Solid Waste Disposal Act, regulates the management of solid waste and HW. The Hazardous and Solid Waste Amendments (HSWA) of 1984 amended RCRA to include cleanup, through corrective action, of releases of HW at RCRA-regulated facilities. RCRA requires cradle-to-grave management of HW through a recordkeeping system that tracks shipments of HW, from the point of generation to ultimate disposal, using a manifest. HW treatment, storage, and disposal facilities are regulated through the issuance of operating permits. RCRA provides that EPA may delegate authority to States to regulate HW under State law in lieu of RCRA. Irrespective of EPA-delegated HW authority, State HW

substantive and procedural requirements, including the requirement to obtain State permits, are applicable to Navy facilities under the Federal Facility Compliance Act (FFCA).

12-2.2 Other Legislation. Several laws including the Hazardous Materials Transportation Act (HMTA), Occupational Safety and Health Act (OSHA), the Clean Water Act (CWA), the Clean Air Act (CAA), and the Emergency Planning and Community Right-to-Know Act (EPCRA) govern HW.

12-3 Terms and Definitions

12-3.1 Facility. For the purposes of this chapter, a facility is a contiguous piece of land with structures, other appurtenances, and improvements under common ownership or control.

12-3.2 Hazardous Waste. The term "hazardous waste" means a solid waste or combination of solid wastes which because of its quantity, concentration, physical, chemical, or infectious characteristics may:

- a. Cause or significantly contribute to an increase in mortality or to a serious irreversible or incapacitating reversible illness or
- b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

The term solid waste includes solid, liquid, semi-solid, and contained gaseous material.

NOTE:

State regulations may be more stringent and take precedence over Federal regulations.

12-3.3 Hazardous Waste Generator. Any person, by site, whose act or process produces HW or whose act first causes a HW to become subject to regulation.

- a. **Class I Generator** (Large Quantity Generator). Monthly generation quantity of 1,000 kilograms (kg) (2200 pounds (lbs)) or more HW or 1 kg (2.2 lbs) or more acute HW.
- b. **Class II Generator** (Small Quantity Generator). Monthly generation quantity of 100 – 1,000 kg (220 - 2,200 lbs) HW or less than 1 kg (2.2 lbs) acute HW.
- c. **Class III Generator** (Conditionally Exempt Small Quantity Generator). Monthly generation quantity less than 100 kg (220 lbs) HW or less than 1 kg (2.2 lbs) of acute HW. Such generators are exempt from substantially all RCRA requirements. Further discussion is found in reference (a).

12-3.4 Infectious Waste. Infectious waste is liquid or solid waste capable of causing transmission of disease to humans when the following factors are present:

- a. There must be the presence of a pathogen, which is a microorganism that can cause infection. Many microorganisms are incapable of causing infection in humans.
- b. The pathogen must be of sufficient virulence, which is the disease evoking power of the microorganism. Not all pathogens are equally capable of causing infectious disease.

- c. The pathogen must be present in sufficient numbers of microorganisms for infection to occur.
- d. The microorganisms must have a portal of entry or a way to get into the body (either through mucous membranes or a puncture, cut, or wound).
- e. There must be a susceptible host. All persons are not equally susceptible to infectious diseases (reference (b)). The categories listed below are considered infectious waste:
 - (1) Medical wastes from isolation rooms are often considered infectious waste. However, only those items that are contaminated or likely to become contaminated with infectious material are defined as infectious waste.
 - (2) Microbiological wastes including cultures and stocks of etiological agents containing microbes that, due to their species, type, virulence, or concentration, are known to cause disease in humans. Examples include specimens from medical and pathology laboratories; discarded live vaccines; wastes from production of biologicals; cultures and stocks of infectious agents from clinical research and industrial laboratories; and, disposable culture dishes and devices used to transfer, inoculate, and mix cultures.
 - (3) Blood and blood products including waste blood, serum plasma, Pleurevacs, and hemovacs
 - (4) Pathological wastes including human tissues and organs; amputated limbs or other body parts; fetuses; placentas; and, similar tissue from surgery, delivery, or autopsy procedures
 - (5) Sharps (discarded medical devices that have been used in animal or human patient care), including hypodermic needles, syringes, trocars, blood vials, scalpel blades, Pasteur pipettes, specimen slides, cover slips, glass petri plates, and broken glass potentially contaminated with infectious material
 - (6) Contaminated animal carcasses, body parts, and bedding, including contaminated animal carcasses, body parts, and bedding of animals that were intentionally exposed to pathogens.

12-3.4.1 The following items are not considered infectious:

- a. Absorbent materials containing small amounts (<20 ml) of blood or body fluids and no free flowing or unabsorbed liquid.
- b. Used products for personal hygiene such as diapers, facial tissues, and sanitary napkins.
- c. Disposable products used during routine medical or dental procedures (e.g., rubber gloves, rubber dams, cotton and paper products, equipment trays, tubing, and catheters).
- d. Empty pill bottles and intravenous (IV) bags.
- e. Expired, unused culture tubes and plates.
- f. Packaging and overwrap.

12-4 Requirements

12-4.1 Hazardous Waste

a. **General.** Any activity that generates, transports, treats, stores, or disposes of HW and any activity that produces, burns, distributes, or markets any HW-derived fuels must notify the EPA or State environmental agency of their activities, obtain an EPA or State HW generator identification (ID) number, and comply with applicable Federal, State, and local HW laws and regulations.

Reference (a) contains the Federal RCRA regulations. Nearly all states are authorized by EPA to administer and enforce the RCRA program. A State with final authorization administers its HW program in lieu of EPA administering the Federal program in that State. When new, more stringent Federal requirements are issued, authorized States are obligated to enact equivalent authority within specified time frames. However, if such newly issued requirements are imposed under HSWA and are more stringent than the existing Federal RCRA program, they are enforceable by EPA until the State is granted authorization to do so. Compliance with applicable State and local HW regulations is also required.

b. **Identification of HW.** Generators must identify and designate all waste streams to determine if the waste streams are HW. HW is either "listed" (specifically named in Federal/State regulations) or may exhibit any of four characteristics:

- (1) Ignitability
- (2) Corrosivity
- (3) Reactivity

(4) Toxicity (as determined by the toxicity characteristics leaching procedure (TCLP) or additional procedures under State law).

A determination of whether any of these four characteristics apply to a waste can be made by reviewing the definitions in the appropriate Federal and State regulations, comparing the properties of the waste to those that define HW, or by using EPA-approved test methods. Mixtures of a solid waste and a listed HW are also considered hazardous and are regulated under RCRA, unless the listed HW was listed solely for the characteristic of ignitability, reactivity, and/or corrosivity. Such mixtures are excluded once they no longer exhibit a characteristic. It is the generator's responsibility to determine whether their waste is a HW subject to regulation under RCRA and/or applicable State and local laws.

NOTE:

Knowingly diluting a HW for the purposes of avoiding HW regulations is prohibited.

c. **HW Generation and Accumulation.** Threshold monthly generation rates and accumulation quantities are established in Federal or State regulations. A generator may accumulate hazardous waste on-site for 90 days or less without a permit or interim status provided certain waste management, contingency planning, and employee training requirements are met. A generator who accumulates HW for more than the times prescribed in Federal or State regulation becomes an operator of a storage facility, subject to RCRA permit requirements.

Generation rates between 100 and 1,000 kilograms per month subject the generator, known as a "Small Quantity Generator," to HW generator requirements that include obtaining an EPA ID Number and using the Uniform Hazardous Waste Manifest to ship wastes off-site. A Small Quantity Generator may accumulate HW on site for 180 days or less without a permit or interim status provided the quantity of waste accumulated on-site never exceeds 6000 kilograms and the Small Quantity Generator complies with all other applicable regulations. If more than 1,000 kilograms per month are generated, the generator and the waste are subject to full regulation under RCRA.

According to Federal HW regulations, HW accumulation at a satellite accumulation point is limited to a cumulative maximum of 55 gallons of all (not each) HW or one quart of acute HW. Satellite accumulation points must be located at or near the point of generation and be under the control of the operator of the process generating the HW at all times. Waste accumulated in excess of 55 gallons (cumulative) must be removed within 72 hours to a less than 90-day accumulation area or a permitted storage facility.

Generators are obligated to send their HW to treatment, storage, or disposal (TSD) facilities that comply with RCRA regulations. The generator must certify on the HW manifest that the method selected for treatment, storage, or disposal is the practicable method available to the generator that minimizes the present and future threat to human health and the environment. In addition, generators must certify that they have a HW minimization program in place to reduce the volume and toxicity of waste generated.

A generator who generates a HW subject to Federal land disposal restrictions must notify the TSD facility that the waste is a restricted waste or certify that the waste meets the requirements for land disposal.

d. **HW Transportation.** Transportation of HW off-site requires a HW manifest (see paragraph 12-4.1f). Transporters must have an EPA identification number to pick up and haul waste to a TSD facility. A transporter of HW is also subject to the hazardous material transportation requirements of the Department of Transportation (DOT), including labeling, marking, placarding, use of proper containers, spill reporting, and hazmat employee training.

e. **HW Treatment, Storage, and Disposal.** TSD facilities need a permit to continue existing operations or to initiate new operations. EPA initially developed a two-part permitting procedure. The Part A application conferred interim status to an existing TSD facility, allowing the TSD facility to operate until receipt of a decision on the Part B final permit application.

TSD facilities may only be expanded or significantly changed and still remain in an interim status with the approval of EPA regional offices or the State HW office. Interim status cannot be conferred on a new TSD facility if operation commenced after 19 November 1980. In such instances, a final permit must be applied for and obtained before operation begins. Any operation before award of a Part B permit or modification of an existing Part B permit must be approved by the cognizant State or EPA.

Any existing facility that becomes subject to RCRA, due to new regulations or amendments to the existing regulations, may be granted interim status after timely submission of a Part A application and may have a 12 month grace period to submit its Part B permit application.

f. **HW Manifest System.** The Uniform Hazardous Waste Manifest or State equivalent must accompany all HW transported over any public road. A generator who offers HW for transport off-site must prepare a manifest.

Further, the generator or designated representative must sign the manifest certifying that the shipment has been prepared according to applicable EPA and DOT regulations. In circumstances where a Public Works Center (PWC) or Defense Reutilization and Marketing Office (DRMO) is managing the pickup, transport, and disposal of HW for an activity, the PWC or DRMO may prepare the manifest, but the responsibility for correct and complete manifest preparation remains with the generator. The manifest does not replace DRMO Disposal Turn-in Document DD 1348-1A."

NOTE:

DRMO is not, in most cases, the HW generator and assumes none of the HW generator's responsibility for ensuring that wastes are correctly profiled or that manifests and all required documentation and reports are accurate and complete. DRMO may enter the facility's ID number on the manifest, but it remains the facility's responsibility to verify all information and to sign the manifest. If HM is turned into a DRMO for resale and is later determined by the DRMO to be HW, the DRMO will fulfill the generator requirements; however, records and manifests must be kept by the activity that actually generated the HW.

Sufficient copies of the manifest shall be provided to allow the generator, each transporter, and the TSD facility operator designated to receive the HW to keep a copy for their records and to allow copies to be returned to the generator for recordkeeping and distribution to the appropriate State(s). Activities shall also include a 24-hour manned duty telephone number in the "generator" block on each manifest. Each generator signatory shall be authorized in writing to sign the manifest for the installation commander and/or permit holder, as appropriate.

g. **Reporting and Recordkeeping.** There are many recordkeeping requirements applicable to generators and TSD facilities. Some records are specific to the generator or type of facility, and others are required by law. The following is a list of the most common reporting and recordkeeping requirements:

(1) **Biennial Reports.** Generators and TSD facilities shall submit a Biennial Report to the appropriate EPA regional office or designated State agency by 1 March of each even-numbered year (some States require an annual report rather than the biennial report). Maintain a copy of each Biennial Report for a period of at least 3 years from the due date of the report.

(2) **Manifests.** Except as otherwise required by State law, copies of manifests signed by the generator, the transporter, and the TSD owner or operator must be maintained for 3 years from the date the HW was accepted by the original transporter.

Generators who have not received a signed manifest within 35 days of the date the HW was shipped must contact the transporter or designated TSD facility to determine the status of the waste. Generators who do not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated TSD facility within 45 days of the date the HW was shipped must file an Exception Report with the EPA or State, as appropriate. Maintain a copy of each Exception Report for a period of at least 3 years from the due date of the report.

If a TSD facility accepts hazardous waste from an off-site source without an accompanying manifest, the TSD operator must submit a report to the EPA Regional Administrator or appropriate State office within 15 days after receiving the waste.

(3) Land Disposal Restriction (LDR) Notifications and Certifications. Generators of waste must determine whether their waste meets the LDR treatment standards, either by testing or using knowledge of the waste. With the initial shipment of waste, the generator must transmit a one-time written notice to each TSD facility receiving the waste and place a copy in the generator's file. The notice should include the applicable notification and certifications in accordance with the LDR section of reference (a). No further notification is necessary unless the waste or TSD facility change, in which case a new notification must be sent and a copy placed in the generator's file.

Whether waste determinations are based on knowledge of the waste or analytical testing, generators must retain all supporting data used to make the determination in the on-site files.

Generators managing and treating HW in less than 90 day tanks or containers, in order to meet applicable LDR treatment standards, must develop and follow a written waste analysis plan that contains all information necessary to treat the waste(s) in accordance with the LDR requirements. The plan must be kept on site in the generator's records. Generators managing hazardous waste in a Clean Water Act system must maintain a one-time note to the on-site file.

Generators must retain on-site a copy of all notices, certifications, waste analysis data, and other documentation related to the RCRA Land Disposal Restrictions for at least 3 years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. The 3-year record retention period is automatically extended during the course of any unresolved enforcement action.

(4) Spill reporting. In the event of a fire, explosion, or other release which could threaten human health outside the facility or when a spill has reached surface water, the emergency coordinator must immediately notify the National Response Center (using their 24-hour toll free number 800/424-8802). Transporters shall report any discharge of HW in transit as specified in Federal regulations.

(5) Training Documentation. Generators and operators of TSD facilities shall develop a training plan and maintain personnel training records of those engaged in hazardous waste management, as required by Federal and State regulation. Federal RCRA regulations require that training records on current personnel be kept until closure of the facility. Training records on former employees must be kept for at least 3 years from the date the employee last worked at the facility.

(6) Pollution Prevention Annual Data Summary (P2ADS). Navy generators shall submit a P2ADS annual calendar year report to Naval Facilities Engineering Service Center (NFESC). (See paragraph 12-5.4).

Additional reports and recordkeeping requirements apply for specific types of facilities. A thorough review of the regulations applicable to the facility is necessary to ensure complete records are maintained.

Though not required by regulation, it is good practice to keep a written record of inspections such as that of waste accumulation and container storage areas. In addition, copies of correspondence with regulators, applications for permits and renewals, report of releases, documentation of response actions, etc., are all useful should a question arise.

h. **Federal Facility Compliance Act (FFCA).** The FFCA of 1992 subjects Federal facilities to all provisions of Federal, State, interstate, and local HW laws and regulations. The full range of available enforcement tools, including civil fines and penalties, are available to EPA, States, and local governments in enforcing these laws and regulations. The FFCA exempts agents, employees, and officers of the United

States from personal liability for any civil penalty arising from acts or omissions within the scope of their official duties. The installation or command whose activities most directly led to the violation(s) is responsible for payment of possible penalties with its operating budget or other available sources of funds. The FFCA also requires payment of any non-discriminatory fees or service charges assessed in connection with a Federal, State, interstate, or local HW regulatory program. This includes assessments in connection with the processing and issuance of HW permits; amendments to permits; reviews of plans, studies, and other documents; and, the inspection and monitoring of facilities.

12-4.2 Radioactive Mixed Waste. Sometimes RCRA HW becomes mixed with radioactive waste, creating a combination that is regulated under both RCRA and the Atomic Energy Act. The Director, Naval Nuclear Propulsion (N00N) is responsible for all policy and other matters pertaining to radioactive mixed waste resulting from naval nuclear propulsion work, and DCNO (Fleet Readiness and Logistics) (N4) is responsible for all other Navy mixed waste. RCRA Generator requirements apply to mixed waste. Refer to Navy Nuclear Propulsion Program (NNPP) policy on HW management.

12-4.3 Infectious Waste Management. Federal facilities that generate infectious waste are responsible for complying with State and local infectious waste regulations. Federal facilities that transport infectious waste across State lines are also responsible for complying with the transporter, disposal, and manifesting requirements for the State into which it is transported. Chapter 19 provides requirements for infectious waste generated aboard ships.

12-5 Navy Policy

12-5.1 General. Navy HW processes shall incorporate the following elements of pollution prevention:

- a. HM considerations, especially those relating to environment, safety, and health shall be incorporated into the earliest stages of Integrated Logistics System (ILS) planning and acquisition.
- b. Navy activities shall establish Pollution Prevention Plans per Chapter 3 that address HM and HW.

12-5.2 Compliance with HW Management Requirements. Navy activities shall comply with applicable HW management requirements. Compliance with all aspects of an EPA-approved State HW management program is considered compliance with Federal requirements. Activities shall ensure that contractors performing work for the Navy on Navy property comply with all applicable requirements while on site. If a State has a program that is not approved by EPA, Navy activities shall comply with both the State and Federal program requirements.

12-5.2.1 Applicability of RCRA to Navy Ships and Navy Shore Activities.

a. The 1992 FFCA provides that any HW generated on public vessels (which includes Navy vessels) shall not be subject to the storage, manifest, inspection, or recordkeeping requirements of RCRA until such waste is transferred to a shore facility, unless:

- (1) The waste is stored on the public vessel for more than 90 days after the public vessel is placed in reserve or is otherwise no longer in service, or
- (2) The waste is transferred to another public vessel within the territorial waters of the United States and is stored on such vessel or another public vessel for more than 90 days after the date of transfer.

Shore facilities shall manage used and/or excess HM and solid waste transferred from a Navy ship in compliance with applicable HM, HW, and solid waste regulations. For all used HM and solid waste determined by the shore facility to be HW, the shore facility shall be the HW generator and shall assume all responsibility for subsequent management of the HW except for funding. Ships' or fleet accounts as appropriate shall reimburse the receiving shore facility for HW handling and disposal and for lab testing if needed.

Ships' forces must follow the requirements of reference (c) with respect to the segregation, packaging, handling, safety, and labeling of HM. In addition ships shall segregate solid waste in compliance with regulations of the State in which the waste is to be off loaded; the receiving shore facility shall provide information regarding waste segregation requirements. The "Used Hazardous Material" label required by reference (c) for every container of used HM transferred from the ship contains a process description of how the HM was used. If the ship does not provide identification and labeling, the receiving shore activity may designate ship's used HM and solid waste based on laboratory analysis and charge the ship or fleet accounts for lab testing and any additional handling, documentation, administrative, and overhead costs. (Accurate process descriptions based on special knowledge will often suffice to allow the receiving shore facility to designate waste and is preferable to expensive lab testing).

Cooperative, "partnership" relations between shore facilities and ships are encouraged. Ships shall make every effort to ensure HM and solid waste are properly segregated, identified, and transferred; receiving shore facilities shall make every effort to provide quality, timely service to the ships. Shore facilities may refuse to accept HM or solid waste from ships if the segregation, identification, or process description is insufficient or incorrect, though to do so would acknowledge a breakdown in the desired cooperative "partnership" relation. Problems experienced with HM or solid waste received from a ship should be reported to the ship's commanding officer (CO), and if flagrant or repeated, to the ship's immediate superior in command (ISIC).

Retrograde of HM/HW from activities outside the continental U.S. (OCONUS) is not considered importation of HW under the RCRA regulations. Following proper arrangements, Navy activities shall accept OCONUS DOD shipments of HW.

A ship scheduled for decommissioning shall remove all HM prior to the date of decommissioning to the extent practical and appropriate. All HM shall be removed from the ship and processed by the supporting shore activity within 90 days after decommissioning.

Except where used HM is transferred from a tended unit to a tender, ships shall only transfer used HM to another ship during operations that preclude the ship entering a port in which normal offload may occur. Transfers of HM shall be for the sole purpose of returning the material to a supporting shore activity. The operational commander must approve such transfers prior to accomplishment. All used HM received by the receiving ship shall be offloaded within 5 working days of arrival at a U.S. Navy port.

b. **HM/HW from Navy Ships in Private Shipyards.** Federal contract law establishes several requirements regarding HW management under contracts, other than new construction, for work on board Navy ships in shipyards. Those requirements primarily affect Navy ships entering private shipyards for work administered by COMNAVSEASYSCOM; however, ships undergoing contracted work at Navy activities and under the cognizance of Commander, Military Sealift Command (COMSC) and Commander,

Naval Supply Systems Command (COMNAVSUPSYSCOM) are also affected. These requirements are discussed in Chapter 19.

c. **Transporting Shore-Generated Hazardous Waste Aboard Ship.** The Navy has not applied for, and ships have not been granted, EPA identification numbers for transport of HW. Therefore, ships shall not accept HW from a Navy shore activity, either within or outside the U.S., for transportation to another activity or facility, either within or outside the U.S. for processing and disposal.

12-5.2.2 Applicability of RCRA to Military Munitions and Ordnance. Navy and DoD current policy is that military munitions and ordnance are not a HW subject to regulation under RCRA until there is an intent for DoD to dispose of or destroy them. Sites used for disposal or destruction of ordnance by open burning or detonation, not related to training or Explosive Ordnance Disposal (EOD) emergency action, are subject to RCRA regulations. In that regard:

a. Assignment of munitions or ordnance to the Special Defense Property Account or Centralized Demilitarization Account does not by itself constitute a designation as a HW. Those munitions are, rather, awaiting a final decision of use, reuse, reclamation, sales, or demilitarization.

b. RCRA HW requirements are applicable to the demilitarization process at the point where a determination is made in writing by an authorized DoD representative that the munition shall be discarded rather than retained as an item of military ordnance.

c. After the decision is made to dispose of or destroy a military munitions or ordnance, such items shall be managed per RCRA requirements and strictly under DoD regulations. Any resultant products generated by a demilitarization process, such as ash, sludge, or a residue, shall be analyzed to determine if it is a RCRA HW and managed according to analytical results.

d. Explosive Ordnance Disposal (EOD) emergency response is a non-routine operation conducted to abate an imminent and substantial hazard to public health, safety, or property, and such operations are not subject to regulation under RCRA. If, however, the site is used for open burning or open detonation to dispose of or destroy munitions or ordnance not related to training or emergency operations, then such sites are subject to regulation under RCRA. RCRA requirements do not apply to EOD sites used solely for training or to sites used for emergency operations.

e. Munitions and ordnance firing/explosive activities for training, research and development, and quality assurance/quality control testing purposes shall not be considered demilitarization or disposal operations. Further, RCRA regulations are not applicable to the associated firing tables or impact ranges (as long as such areas are not used for demilitarization or disposal purposes).

f. Off-specifications small arms ammunition of calibers up to and including 50 caliber shall not be considered "reactive" within the definition in RCRA. They could, however, be HW for some other reason such as toxicity.

g. Navy installations shall comply with appropriate RCRA permitting requirements for demilitarization operations for conventional munitions and ordnance. Permits obtained shall adhere to existing DoD procedures and provide for adequate protection of human health and the environment and

shall avoid unnecessary administrative burdens or operational requirements that would limit DoD's flexibility in managing its demilitarization program.

h. The FFCA requires EPA, in consultation with DoD, to issue regulations on the application of RCRA to military conventional and chemical munitions. EPA is to examine DoD safety requirements and take them into account when issuing any regulations necessary to protect human health and the environment. When issued, these regulations shall further clarify the applicability of RCRA to conventional and chemical munitions.

i. The management of explosive HW components and associated explosive wastes shall be included in activity HW Management Plans.

12-5.3 HW Management Plans. Every Navy shore activity that generates HW shall develop and use a HW Management Plan or a HW management component in its Pollution Prevention Plan. A HW Management Plan or component(s) shall:

a. Identify applicable Federal, State, and local regulations pertaining to the generation and management of HW.

b. Identify training requirements and describe procedures for obtaining training and maintaining training records.

c. Assign responsibilities for the generation, designation, handling, storage, treatment, disposal, and all documentation.

d. Describe all HW generation and management procedures.

e. Include or reference the HW minimization plan and goals.

f. Include or reference contingency plans and emergency response procedures.

The plan or component shall be kept up to date to include changes in HW generation and management procedures, as well as changes in applicable Federal, State, and local HW regulations. The plan or component shall include or reference minimization procedures sufficient to achieve DOD minimization goals. Tenant activities may be covered by the host CO's HW Management Plan.

12-5.4 Navy Pollution Prevention Annual Data Summary (P2ADS). All Navy shore installations that generate, store, treat and/or dispose of HW shall prepare an annual calendar year report (Report Symbol DD-A&T(SA) 1485 (5090)), per guidance provided by Naval Facilities Engineering Service Center (NFESC). A completed annual report for the previous calendar year shall be sent to NFESC by 16 March. NFESC will provide the data to claimants for review prior to submitting a final report to CNO. All Class I and II generators shall report. Installation reports should include all Navy tenants that generate hazardous wastes. Class III generators who are tenants shall be included in the report of their host installation. Class III generators that are not under a host command are not required to report. See Chapter 14 for a discussion of other solid waste reporting.

12-5.5 Navy and Defense Logistics Agency (DLA) Interface on HW. The DLA's Defense Reutilization and Marketing Service (DRMS) is designated the responsible agency for worldwide disposal of

all HW. However, reference (d) permits COs to contract directly for HW disposal service when, "...they can get a combination of quality, responsiveness, and cost that best satisfies their requirements. ...such decisions should be concurred in by the component chain of command to ensure that installation contracts and disposal criteria are at least as stringent as criteria used by DRMS."

Navy installations shall use DLA HW contract disposal services as much as economically and operationally feasible. However, for those wastes not managed by DLA or when necessary to get the combination of quality, responsiveness, and cost that best satisfies installation requirements, Navy installations may request some other appropriate contract authority to provide contracting services for HW disposal. An installation not using DRMS contract services shall insure the contract requirements comply with Federal, State, and local HW regulations; shall ensure contract requirements and contract quality control procedures are at least as stringent as those used by DRMS; and, shall obtain concurrence by their major claimant. Refer to the HW disposal contract standards provided in Chapter 10, Attachment 2, of reference (e). Generator liability and responsibilities are the same whether using DLA HW contracting services or any other HW contracting service.

12-5.6 HW Minimization. Navy activities shall reduce HW generation and disposal per reference (f) and by implementing a combination of the following procedures and processes in priority order:

- a. Eliminating and/or reducing, at the source, the use of HM by changing the process, equipment, requirement, or materials used.
- b. Substituting a less hazardous/toxic HM in the process.
- c. Recycling/recovery and reuse of HM.
- d. Reducing and/or eliminating excess and expired shelf-life HM.
- e. Treating HW to reduce the volume or to reduce it to a less toxic or non-hazardous state.
- f. Destruction of HW.
- g. Disposal as a last resort.

When requirements in technical directives or weapon system procedures require use of HM beyond the control of the activity, appropriate action shall be taken to advise the cognizant Echelon 2 command of the need for appropriate action.

12-5.6.1 Certification. Federal laws and regulations require certification on HW manifests that the activity, insofar as is economically practicable, has a program to minimize the volume and toxicity of wastes generated. To make such a certification, Navy activities shall have a pollution prevention plan or hazardous waste minimization plan with Plan of Action and Milestones (POA&M). See Chapter 3.

12-5.6.2 Goals. The long-term Navy goal is to eliminate HW disposal to the maximum possible extent by eliminating the use of HM and/or by implementing best management practices (BMPs) and best demonstrated available technology (BDAT).

12-5.7 Training

- a. Every person who produces, packages, handles, treats, or transports hazardous waste shall have received applicable NAVOSH Worker Right- to-Know Training on hazardous materials; shall receive applicable training as shown on Figure 12.1; and, shall receive job-specific training regarding hazardous waste safety, packaging, labeling, handling, documentation, transportation, and turn-in procedures specific to their installation. Training curricula shall be tailored to include State and local HW laws and regulations. Each command shall maintain training records and documentation as required by Federal, State, and local regulations.
- b. Every person involved in hazardous waste management at naval shore facilities shall receive the general environmental overview training specified in Chapter 24 of this instruction; shall receive specific comprehensive training on Federal, State, and local HW regulations related to their job assignment; and, shall be familiar with the provisions of this chapter.
- c. Every person who directly affects HW transportation safety in commerce shall receive training on compliance with applicable DOT requirements and HM transport safety.
- d. Environmental professionals at COMNAVFACENGCOM and Engineering Field Divisions (EFDs)/Engineering Field Activities (EFAs), Navy Regional Environmental Coordinators, major claimant and regional commander environmental staffs, and legal environmental staff shall receive the general environmental overview training specified in Chapter 24 of this instruction, introductory or executive overview training in hazardous waste management, and shall be familiar with the provisions of this chapter.

12-6 Responsibilities

12-6.1 COMNAVFACENGCOM shall:

- a. As requested, provide technical assistance to major claimants and activities in complying with Federal, State, and local HW laws and regulations and in the preparation of activity HW management and Pollution Prevention Plans.
- b. Prepare an annual Pollution Prevention Annual Data Summary. The report shall show progress toward achieving goals by each major claimant and the Navy as a whole and other information as directed by CNO (N45).
- c. Assist ships, claimants, and shore activities in reaching a long-range goal of elimination of HW disposal to the maximum extent possible.
- d. Designate and supervise Public Works Centers (PWCs) in receiving, storing, and shipping HW.
- e. As requested, assist shore activities in obtaining permits for all new HW management facilities.
- f. Pay fees for applications and permits for construction of Military Construction (MILCON) funded HW management facilities from funds appropriated for the project.

12-6.2 COMNAVSUPSYSCOM shall:

- a. Establish and implement an HMC&M program as required by reference (f) throughout the supply system.
- b. Maintain and update procedures and instructions to ensure that transportation, storage, and handling of HM/HW fully complies with applicable regulations.
- c. Develop a program for the acquisition, stocking, and supply of conforming containers required for the transportation and storage of HW.
- d. Include provisions in inter-service support agreements (ISSA) with DLA for DLA/DRMS/DRMO support of HW requirements Navy-wide.

12-6.3 Director of Naval Nuclear Propulsion (N00N) is responsible for all matters pertaining to radioactive mixed waste resulting from naval nuclear propulsion plants.

12-6.4 Chief, Naval Education and Training shall develop and provide training on the occupational safety and health aspects of HW and HM applicable to Navy personnel.

12-6.5 BUMED shall:

- a. Ensure reference (g) instruction on infectious waste management for Navy medical treatment facilities is current.
- b. Ensure that subordinate commands comply with Federal, State, local, and Status of Forces Agreement (SOFA) requirements regarding the identification, generation, handling, storage, transport, treatment, and disposal of infectious waste.

12-6.6 Major claimants and subordinate commands shall:

- a. Ensure that their activities comply with applicable Federal, State, and local HW laws and regulations.
- b. Ensure subordinate commands develop and use HW Management Plans or a HW management component of Pollution Prevention Plans as required by section 12-5.3.
- c. Budget and allocate sufficient resources to ensure shore activities manage HW per all applicable Federal, State, and local HW laws and regulations, including the assignment and training of operational and management personnel, operation and maintenance of equipment and facilities, transport and disposal of waste, etc.
- d. Ensure their activities comply with Navy HM and HW management and reporting requirements.

12-6.7 Commanding officers of shore activities in coordination with the appropriate regional commander shall:

- a. Develop and use a HW Management Plan or HW component of a Pollution Prevention Plan as required by section 12-5.3 of this chapter.
- b. Budget, fund, and manage HW in full compliance with applicable substantive and procedural Federal, State, and local HW laws and regulations.
- c. Cooperate with Federal, State, and local HW regulatory officials.
- d. Provide reports and other required data and information to Federal, State, and local HW regulatory agencies.
- e. Submit a Pollution Prevention Annual Data Summary to NFESC.
- f. If CO of host activities, serve as the HW generator for the "site" or "facility" as defined by the applicable regulatory agency and obtain and maintain applicable HW generator ID number.
- g. If CO or officer in charge of a tenant activity, comply with the policies of this manual and with written HW Management Plans established by the host CO.
- h. Provide training for all personnel involved in HW management and operations under applicable Federal, State, and local requirements.
- i. If in charge of port facilities, receive HM from ships and process it for reuse or disposal per applicable Federal, State, and local regulations.
- j. If a generator of infectious waste:
 - (1) Comply with the infectious waste management procedures specified in reference (g).
 - (2) Determine, evaluate, and comply with Federal, State, local, or SOFA regulations that are more stringent than the requirements in reference (g).
 - (3) Request technical assistance, as required, from cognizant NAVFACENGCOM or BUMED in carrying out required actions.
 - (4) Budget and fund the operation and maintenance of facilities and equipment necessary to handle, store, transport, treat, and dispose of infectious waste per applicable Federal, State, local, or SOFA regulations.

12-6.8 Commanding officers of shore activities assigned to receive used/excess HM, solid waste, or infectious waste from ships and HW from other shore activities shall:

- a. Receive ships' used/excess HM and solid waste and process it for reuse or for disposal as HW per Federal, State, and local environmental laws and regulations.

4 June 2003

- b. Provide accessible facilities to receive HW and to store it per applicable EPA and/or State regulations until the material is disposed or transferred to DLA.
- c. Provide accessible facilities to receive and store infectious waste per applicable Federal, State, local, or SOFA regulations until disposal of the materials.
- d. Provide for disposal of infectious waste per applicable Federal, State, local, or SOFA regulations.
- e. Manage infectious wastes in foreign countries to assure protection of human health and the environment, as well as meet any applicable SOFA requirements.

12-6.9 Fleet CINCs and type commanders, as appropriate, shall:

- a. Reimburse Navy shore activities receiving ships' used/excess HM and solid waste for expenses incurred for laboratory analysis, HW handling, storing, and disposal.
- b. Reimburse Navy shore activities receiving ships' infectious waste for expenses incurred in handling, storing, and disposing of the material.

Health and Safety Training Requirements for Hazardous Waste and Emergency Response

Hazardous Waste Clean-Up Sites		Other Emergency Response Staff	
Staff			
• Routine site employees	40 hours initial 24 hours field 08 hours annual refresher 24 hours supervised field	Level 1 - First responder (awareness level) ¹	Sufficient training or proven experience in specific competencies
• Routine site employees (minimal exposure)	24 hours initial 08 hours field 08 hours annual refresher	Level 2 - First responder (operations level) ²	Level 1 competency and 8 hours initial or proven experience in specific competencies
• Non-routine site employees	24 hours initial 08 hours field 08 hours annual refresher		Annual refresher
Supervisor/Managers of			
• Routine site employees	40 hours initial 24 hours field 08 hours hazardous waste management 08 hours annual refresher	Level 3 - HAZMAT technician ³	24 hours of Level 2 and proven experience in specific competencies
• Routine site employees (minimal exposure)	24 hours initial 08 hours field 08 hours hazardous waste management 08 hours annual refresher	Level 4 - HAZMAT specialist ⁴	Annual refresher 24 hours of Level 3 and proven experience in specific competencies
• Non-routine site employees	24 hours initial 08 hours field 08 hours hazardous waste management 08 hours annual refresher	Level 5 - On-the-scene incident commander ⁵	Annual refresher 24 hours of Level 2 and additional competencies Annual refresher
Treatment, Storage, and Disposal Sites			
Staff			
• General Site employees	24 hours initial or equivalent 08 hours annual refresher		
• Emergency response personnel	Trained to a level of Competency Annual refresher		

Note: See 29 CFR 1910.120 (e) and (p)(7).

Note: See 29 CFR 1910.120 (q)(6).

¹ *Witnesses or discovers* a release of hazardous materials and who is trained to notify the proper authorities

² *Responds* to releases of hazardous substances in a defensive manner, without trying to stop the releases

³ Responds aggressively to stop the release of hazardous substances

⁴ Responds with and in support to HAZMAT technicians, but who has specific knowledge of various hazardous substances

⁵ Assumes control of the incident scene beyond the first-responder awareness level

Figure 12.1